

IN THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph [0001] on page 1 with the following paragraph:

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[0001] This application is a continuation-in-part under 37 C.F.R. § 1.53(b) of U.S. Pat. Application Ser. No. 09/723,564 filed November 28, 2000 (Attorney Docket No. 6270/48) ~~now U.S. Pat. No. _____~~, the entire disclosure of which is hereby incorporated by reference and is a continuation-in-part under 37 C.F.R. § 1.53(b) of U.S. Pat. Application Ser. No. 09/814,436 filed March 22, 2001 (Attorney Docket No. 6270/60) ~~now U.S. Pat. No. _____~~, the entire disclosure of which is hereby incorporated by reference.
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Please replace the paragraph [0073] on page 22 with the following paragraph which removes a space in the word "The" in the last sentence:

92 [00073] Figure 3c illustrates a preferred embodiment of the communications protocol stack 305e. In the preferred embodiment the connection between devices coupled with the network 110 is established via the Transmission Control Protocol/Internet Protocol ("TCP/IP") protocol suite. To facilitate communications over a network or other communications medium, devices typically include a set of software components known as a protocol stack. The protocol stack handles all of the details related to communicating over a given network so that other application programs executing on the device need not be aware of these details. The protocol stack effectively interfaces one or more application programs
25 executing on the device to the network to which the device is connected. Typically, the protocol stack is arranged as a layered architecture with one or more software components in each layer. In the preferred embodiment, the protocol stack includes an application layer 321, a transport layer 322, a routing layer 323, a switching layer 324 and an interface layer 325. The application layer 321 includes all of the applications component software and/or
30 power management component software. The application layer 321 is coupled with the transport layer 322. Applications or software components in the application layer

communicate with the transport layer in order to communicate over the network. In the preferred embodiment, the transport layer is implemented as the Transmission Control Protocol ("TCP"). The transport layer, using TCP, divides communications from the applications of the application layer 321 into one or more packets for transmission across the network. The transport layer adds information about the packet sequence to each packet plus source and destination information about what application component generated the communication and to what application component on the receiving end the communication should be delivered to once reassembled from the constituent packets. The routing layer is coupled with the transport layer and is responsible for routing each packet over the network to its intended destination. In the preferred embodiment, the routing layer is implemented as the Internet Protocol ("IP") and utilizes internet protocol addresses to properly route each packet of a given communication. The switching and interface layers 324, 325 complete the protocol stack and facilitate use of the physical hardware which couples the device to the network. This hardware may include an Ethernet interface, a modem, or other form of physical network connecting including RF based connections such as Bluetooth interfaces. Generally, the preferred embodiments are capable of communicating via any network which transmits information utilizing the TCP and IP, collectively TCP/IP, protocols as are known in the art. TCP/IP is essentially the basic communication language of the both the Internet and private intranets. TCP/IP utilizes the communications protocol stack and can be described as comprising a TCP layer which manages the decomposing and reassembling of messages from the application layer 321 into smaller more manageable packets, and the IP layer which handles the addressing of the packets. The IP layer comprises the routing layer 323, the switching layer 324 and the interface layer 325. The interface layer 325, as described above, makes the physical connection with the network utilizing connections such as Ethernet, dial-up-modems, Point-to-Point Protocol (PPP), Serial Line Interface Protocol (SLIP), cellular modems, T1, Integrated Service Digital Network (ISDN), Digital Subscriber Line (DSL), Bluetooth, RF, fiber-optics or AC power line communications. In an alternate embodiment multiple interface layers 325 are present. For example, the interface layer 325 contains both an Ethernet and cellular modem thus enabling the IED to connect to the network with either interface. This redundancy is advantageous if one interface is inoperable due to a local Ethernet or cellular network outage. It is preferable that one or more of the

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application components in the application layer 321 implement TCP compatible protocols for the exchange of their communications over the network. Such TCP compatible protocols include the Instant Messaging protocol, file transfer protocol ("FTP"), or Hypertext Transport Protocol ("HTTP"). In addition, a Secure HTTP (S-HTTP) or Secure Socket
5 Layers (SSL) may also be utilized between the application layer 321 and the transport layer 322 for secure transport of data when HTTP is utilized. S-HTTP is an extension to HTTP that allows the exchange of files with encryption and or digital certificates. SSL only allows authentication from the server where S-HTTP allows the client to send a certificate to authenticate to the user. ~~The~~ The routing layer 323 and the switching layer 324 enable the
10 data packet to arrive at the address intended.

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Please replace the paragraph [0075] on page 24 with the following paragraph which removes a space in the word "The" in the last sentence:

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[0075] In an alternate embodiment the Security Sub-layer 321a may include multiple encryption keys, each conferring different access rights to the device. This enables multiple users, such as a utility and customers, or multiple internal departments of a utility or customer, to send or receive data and commands to or from the IED. For example a
20 customer's IED sends out two encrypted messages, one billing data and one power quality data, to the customer's office site. The billing data message is encrypted at a level where only the internal accounting department has access to decrypt it. The power quality data message is encrypted at a different level where the entire company can decrypt the message. Furthermore, in the preferred embodiment, commands sent to or from the IED are coupled
25 with the appropriate encryption key. For example, the IED's Security Sub-layer 321a may only permit billing reset commands to be received and processed if the command has been authenticated where the point of origin was the appropriate customer or utility. Further, encrypted email messages may also include various encrypted portions, each accessible and readable with a different encryption key. For example an IED sends out one message to both
30 the utility and the customer containing billing data and power quality data. ~~The~~ The data is

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92 encrypted with two different encryption keys so only the utility can decrypt the power quality data and only the customer can decrypt the billing data.

5 Please replace the paragraph [0086] on page 30²⁹ with the following paragraph which removes the reference to a currently non-existent Patent:

86 [0090] In one embodiment, a power reliability component 256 is provided in the IED to measure and compute the reliability of the power system. Power system reliability is
10 discussed in commonly assigned U.S. Pat. Application Ser. No. 09/724,309, entitled "APPARATUS AND METHOD FOR MEASURING AND REPORTING THE RELIABILITY OF A POWER DISTRIBUTION SYSTEM", filed November 28, 2000, ~~now~~
U.S. Pat. No. _____, herein incorporated by reference. In the preferred embodiment the component 256 computes and measures reliability as a number of "nines" measure. The
15 component includes a function which compiles the reliability of the power from other
94 components located on back end servers or IED's, giving a total reliability. This function also enables a user to determine which part of the distribution system has the most unreliable power. Knowing this enables the user to focus on the unreliable area, hopefully improving local power reliability and thus increasing overall reliability.

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Please replace the paragraph [0090] on page 31 with the following paragraph, which adds underscores in place of blank spaces in the XML tags as shown:

25 [0090] Transmission of data in XML format allows a user to receive the data in a readable self-describing format for the application intended. For example, traditional data file formats include comma-separated value files (CSV), which contain values in tables as a series of ASCII text strings organized so each column value is separated by a comma from the next column's value. The problem with sending CSV file formats is the recipient may not
30 be aware of each column's desired meaning. For example, a CSV file may contain the following information sent from a revenue billing application:

45.54,1.25,1234 Elm Street, 8500

where 45.54 is the kWh used this month, 1.25 is the kWh used today, 1234 Elm Street is the location of the device and 8500 is the type of device. However, if the recipient of the CSV file was not aware of the data format, the data could be misinterpreted. A file transported in XML is transmitted in HTML tag type format and includes information that allows a user or computer to understand the data contained within the tags. XML allows for an unlimited number of tags to be defined, hence allowing the information to be self-describing instead of having to conform to existing tags. The same information is transmitted in XML format as:

10 <billing_information>
 <kWh_month>45.54</kWh_month>
 <kWh_day>1.25</kWh_day>
 <location>1234 Elm Street</location>
 <device_type>8500</device_type>
15 </billing_information>